

ABSTRACT

5 A method for look-ahead load pre-fetching that
reduces the effects of instruction stalls caused by
high latency instructions. Look-ahead load pre-
fetching is accomplished by searching an instruction
stream for load memory instructions while the
instruction stream is stalled waiting for completion
of a previous instruction in the instruction stream.
A pre-fetch operation is issued for each load memory
10 instruction found. The pre-fetch operations cause
data for the corresponding load memory instructions
to be copied to a cache, thereby avoiding long
latencies in the subsequent execution of the load
memory instructions.